

THE TAXONOMIC IDENTITY OF
MELITAEA (*ATHALIAEFORMIA*)¹ *MAYI* GUNDER
(LEPIDOPTERA, NYMPHALIDAE)

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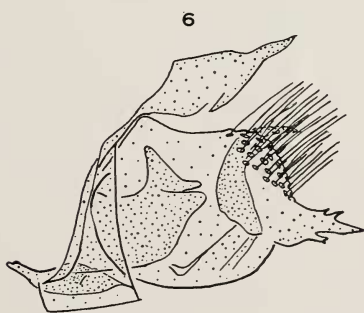
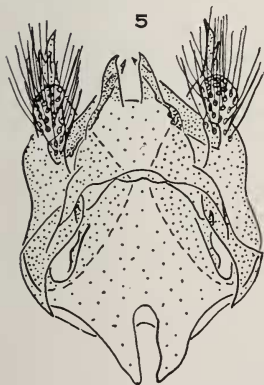
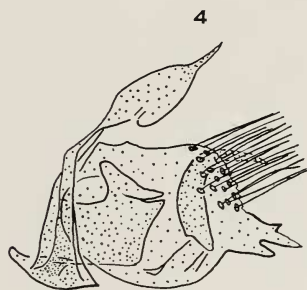
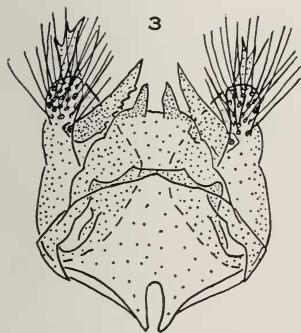
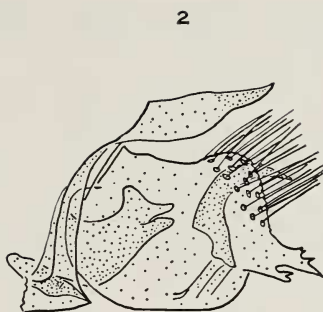
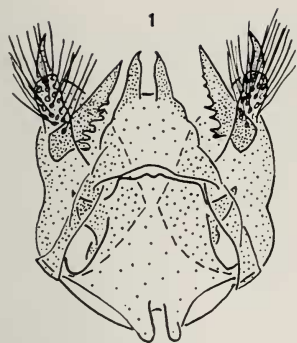
Ever since *mayi* was described by Gunder (1929) as a new species it has been suspected of being closely related to the *Melitaea* species of the *athalia* group, which is primarily Palearctic. However, heretofore nobody appears actually to have compared specimens of *mayi* with any of the Palearctic members of the group. In his original description Gunder, l.c., expresses the belief that *mayi* is very close to *M. (A.) athalia latefascia* Fixsen, basing his conviction on the insect figured on plate 66i of Seitz (1906) under the latter name. Verity (1941) concludes that the name *latefascia* is probably not applicable to Korean specimens previously listed under that name and that these specimens should be assigned to *M. (A.) coreae* Verity. This is important because he goes on to state that the species which Seitz, l.c., figured is the same thing as *coreae*. Therefore it can be seen that both Verity and Gunder equated *mayi* with the same species.

I have made quite a number of genitalic preparations, male and female, of *mayi* and of several of the Asian species

¹Verity (1950) proposed the subgeneric name *Athaliaeformia* to include those members of the genus *Melitaea* belonging to the *athalia* group. He specifically lists *Melitaea mayi* as belonging to this subgenus.

EXPLANATION OF PLATE 2

Fig. 1. Dorsal view of the male genitalia of *Melitaea (Athaliaeformia) ambigua* (= *mayi*) from Banff, Alberta (Genitalic Preparation 166). Fig. 2. Left lateral view of the genitalia in Fig. 1. Fig. 3. Dorsal view of the male genitalia of *M. (A.) ambigua* from Hsiolin, Manchuria (Genitalic Preparation 217). Fig. 4. Left lateral view of the genitalia in Fig. 3. Fig. 5. Dorsal view of the male genitalia of another specimen from Hsiolin, Manchuria (Genitalic Preparation 218). Fig. 6. Left lateral view of the genitalia in Fig. 5. All figures drawn to the same scale. The aedeagus has been removed and is not shown in any of the figures.



of the *athalia* group². The preparations as well as the facies of *mayi* indicate that it does not belong to the same specific complex as *coreae*, as Verity thought, but is instead conspecific with another species, *M. (A.) ambigua* Menetriès. I have figured the male genitalia of *mayi* (figs. 1 and 2) and of two specimens of *ambigua* (figs. 3, 4, 5, and 6) to show that they represent the same thing within the limits of individual variation. I have not figured the female genitalia because I can find no publication where the female genitalia of related species of the *athalia* group have been figured or studied other than for group characters as a whole. However, my preparations of the female genitalia of both *mayi* and *ambigua* show no real differences. The genitalia of *coreae*, on the other hand, appear to be quite distinct from those of *ambigua* and indeed the male genitalia indicate that this species is extremely close if not conspecific with what Verity, l.c., considers to be *M. (A.) britomartis* Assmann. The male genitalia of *coreae* that I have examined agree quite well with those of *britomartis* figured by Petersen (1945). I must admit that on the basis of my studies I strongly doubt the distinctness of *coreae* from *britomartis* but since I do not have the material available to confirm my doubts I must leave the question open. Lastly it should be noted that *coreae* has an earlier flight period (late May to the middle of June) than does *ambigua* or its Nearctic representative *mayi* (late June to early August).

The synonymy of *mayi* with *ambigua* provides us with a very interesting case of geographical distribution. My own examination of specimens and references in the literature indicate that *ambigua* ranges from Japan west to the Eastern Sayansk Mountains in Siberia and between the fortieth and fiftieth parallels in the north-south direction in the Palearctic region. In the Nearctic region its distribution is drastically reduced and the only records that I can

²In this connection I should like to thank Dr. F. H. Rindge of the American Museum of Natural History, Dr. P. J. Darlington of the Museum of Comparative Zoology, Mr. H. K. Clench of the Carnegie Museum, and Mr. J. A. G. Rehn of the Academy of Natural Sciences of Philadelphia for making it possible for me to examine specimens under their care.

find are for the area around Banff, Alberta, and Smithers, British Columbia.

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